

**BRITISH
AIRWAYS**



2024

CUSTOMER REVIEW REPORT

British Airways Customers' Feedback from Skytrax

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1. Context of Report:

British Airways (BA) is the flag carrier airline of the United Kingdom (UK). Every day, thousands of BA flights arrive to and depart from the UK, carrying customers across the world. Whether it's for holidays, work or any other reason, the end-to-end process of scheduling, planning, boarding, fuelling, transporting, landing, and continuously running flights on time, efficiently and with top-class customer service is a huge task with many highly important responsibilities.

Customers who book a flight with BA will experience many interaction points with the BA brand. Understanding a customer's feelings, needs, and feedback is crucial for any business, including BA.

The report focus on reviewing data from a third-party source called SkyTrax and analyzing customer textual feedback to present any insights you may uncover.

2. Method Applied for Analysis:

2.1. Sentimental Analysis:

Sentiment analysis is the use of natural language processing, text analysis, computational linguistics, and biometrics to systematically identify, extract, quantify, and study affective states and subjective information. Sentiment analysis is widely applied to voice of the customer materials such as reviews and survey responses, online and social media.

During the analysis, RoBERTa, a deep language model, is applied for sentimental analysis towards customers' feedback from British Airways.

2.2. Topic Modelling:

2.2.1. Definition:

Topic modeling is a technique used to find themes or topics in a large set of text documents. It groups words that frequently appear together into topics, helping to organize and summarize the text. This method can automatically categorize documents by topics, like sports, technology, or health, making large datasets easier to understand.

Our report will apply Latent Dirichlet Allocation (LDA) for topic modelling. It assumes each document is a mix of topics, and each topic is made up of words that frequently appear together. By processing the text, LDA identifies these topics and groups words that frequently appear together, which helps to automatically categorize and summarize large text datasets.

2.2.2. Applied Result:

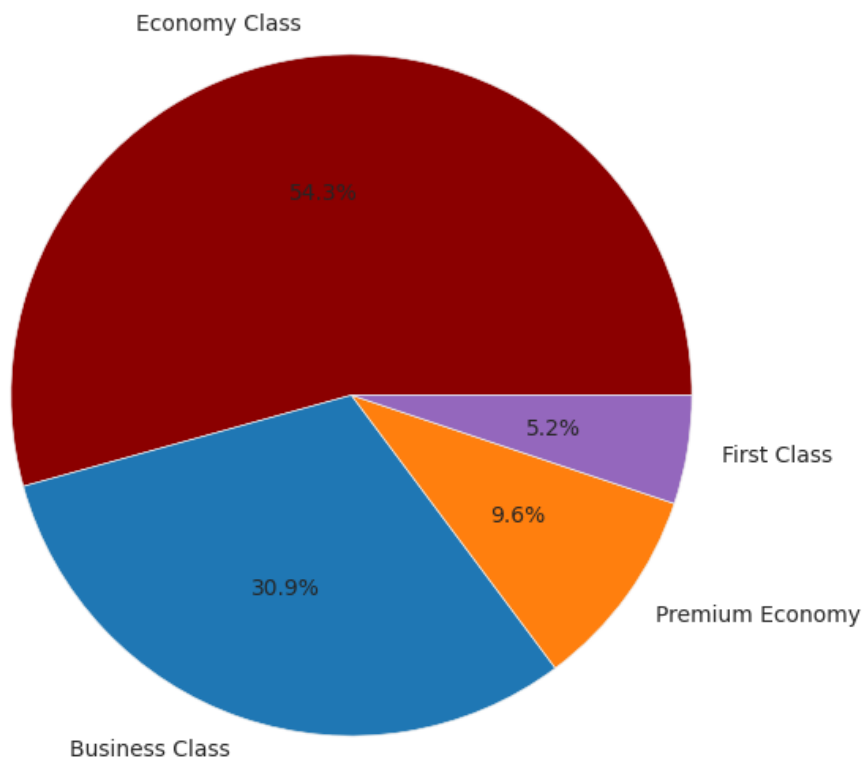
Based on LDA, I have divided the topic discussed into **4 main groups**:

Index	Topic Name	Main Keywords
0	In-Flight Service	Seat, cabin, food, service, crew, entertainment
1	Flight Operations and Punctuality	Flight, check, hour, delay, time, day, arrive
2	Onboard Dining and Amenities	Serve, meal, lounge, drink, breakfast, dinner, coffee
3	Customer Service and Support	Customer, refund, call, ticket, book, pay, cancel, change

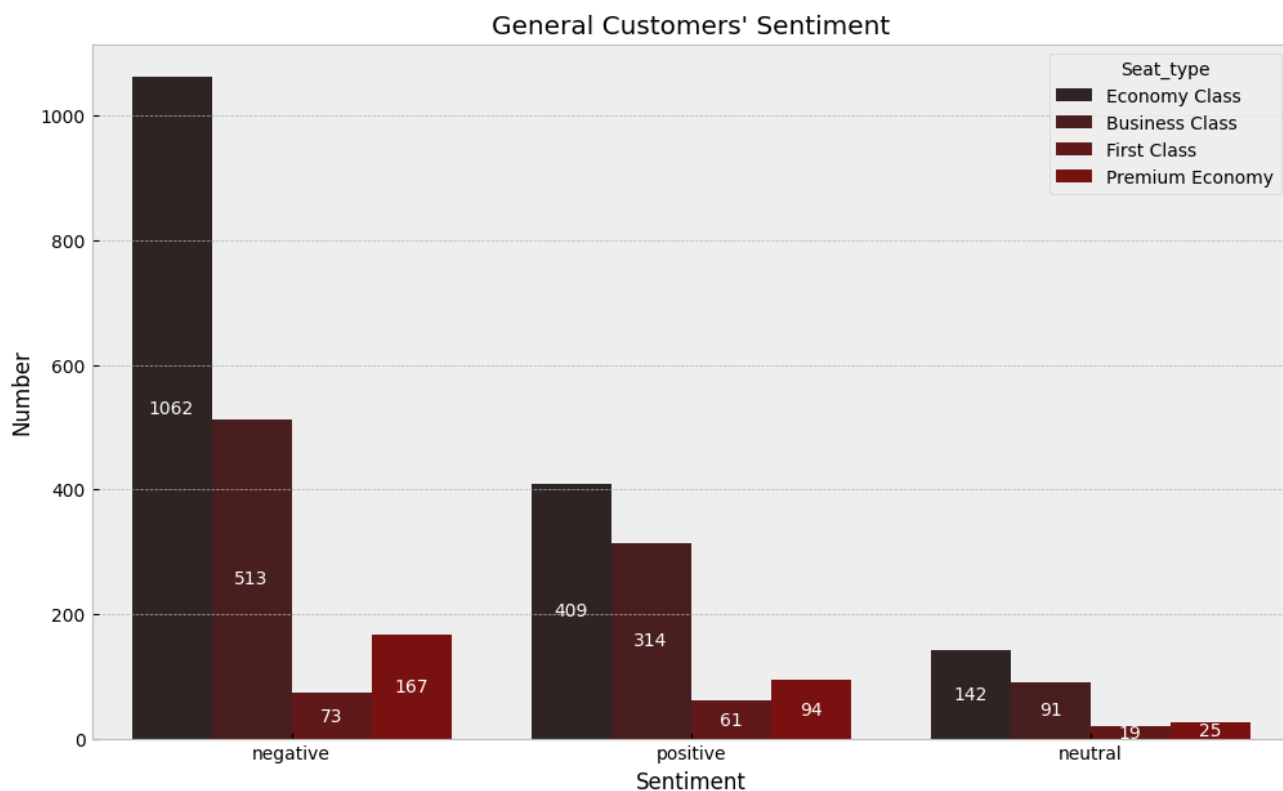
3. Analytical Result:

3.1. Relationship between seat class and sentiment:

Proportion of customers giving feedbacks



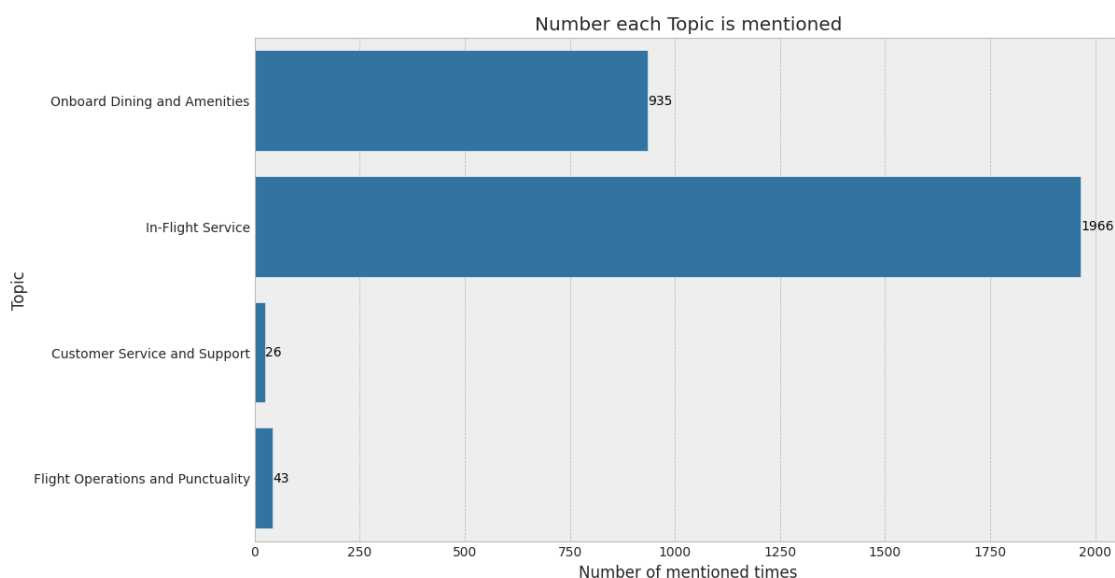
- More than half of reviews are from customers using Economy Class service (54.3%).
- With the quality increase in seat class, the numbers of reviews from customers decrease.
⇒ **Naturally, there is an inverse proportion between the quality of seat class and the number of reviews.** Fewer customers from higher seat class give reviews to SkyTrax compared to those in lower seat class.

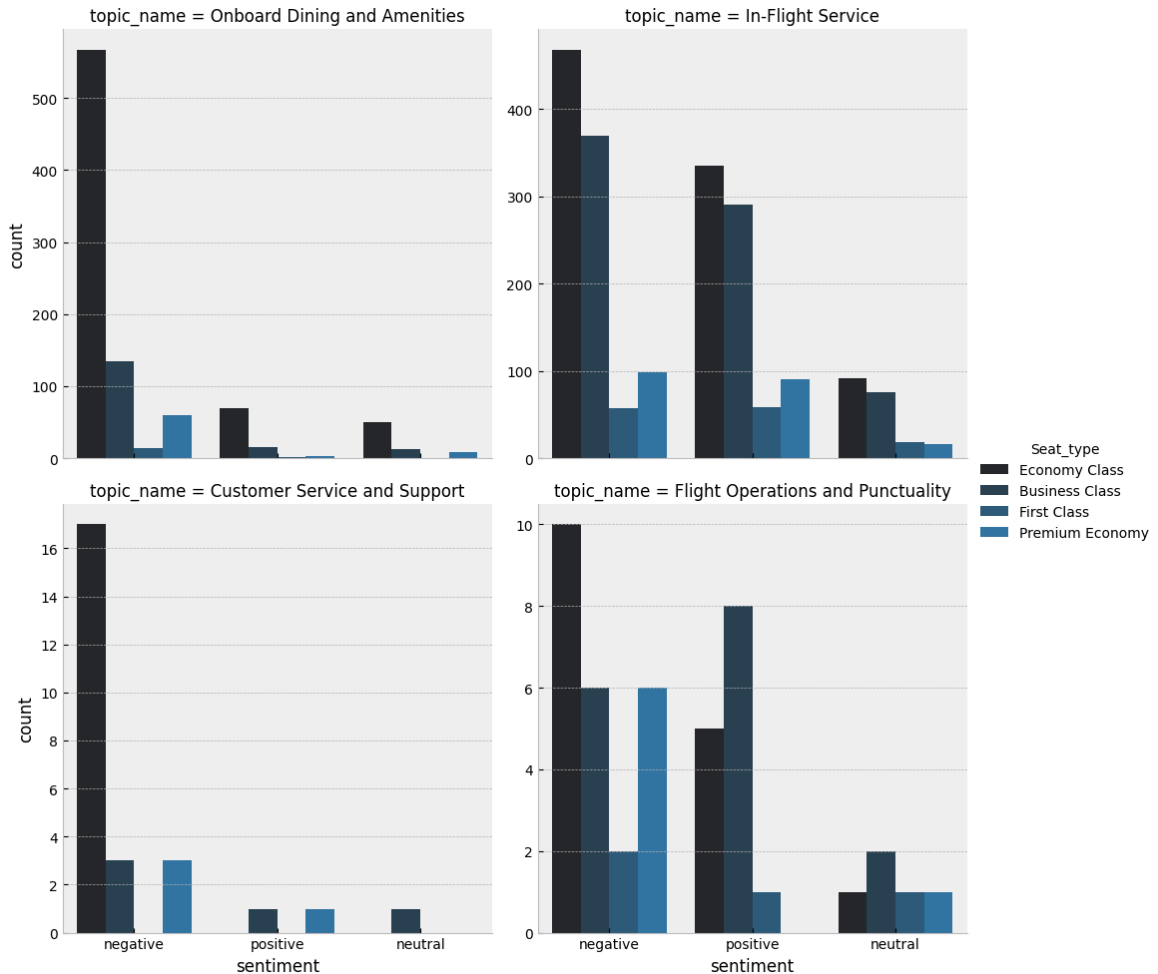


- Customer reviews are overwhelmingly negative (61.1%), which is more than twice the figure of positive attitude (878 reviews in total). To some extent, this is understandable since naturally customers tend to give a review when they have something to show out.

- Economy class is the category which has lowest positive review percentage with only about one fourth of total review while first class segment has the highest (nearly 40%) though the figure is still below 50%.

3.2. Relationship between Seat Class, Topic and Sentiment:



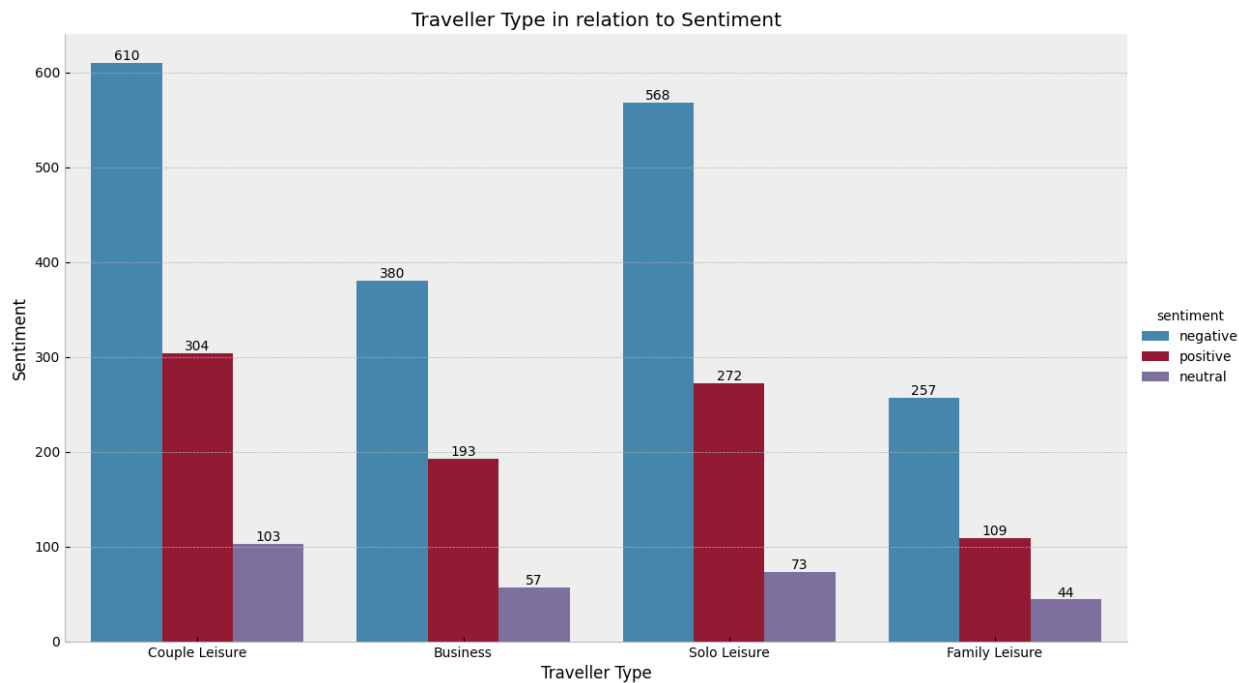
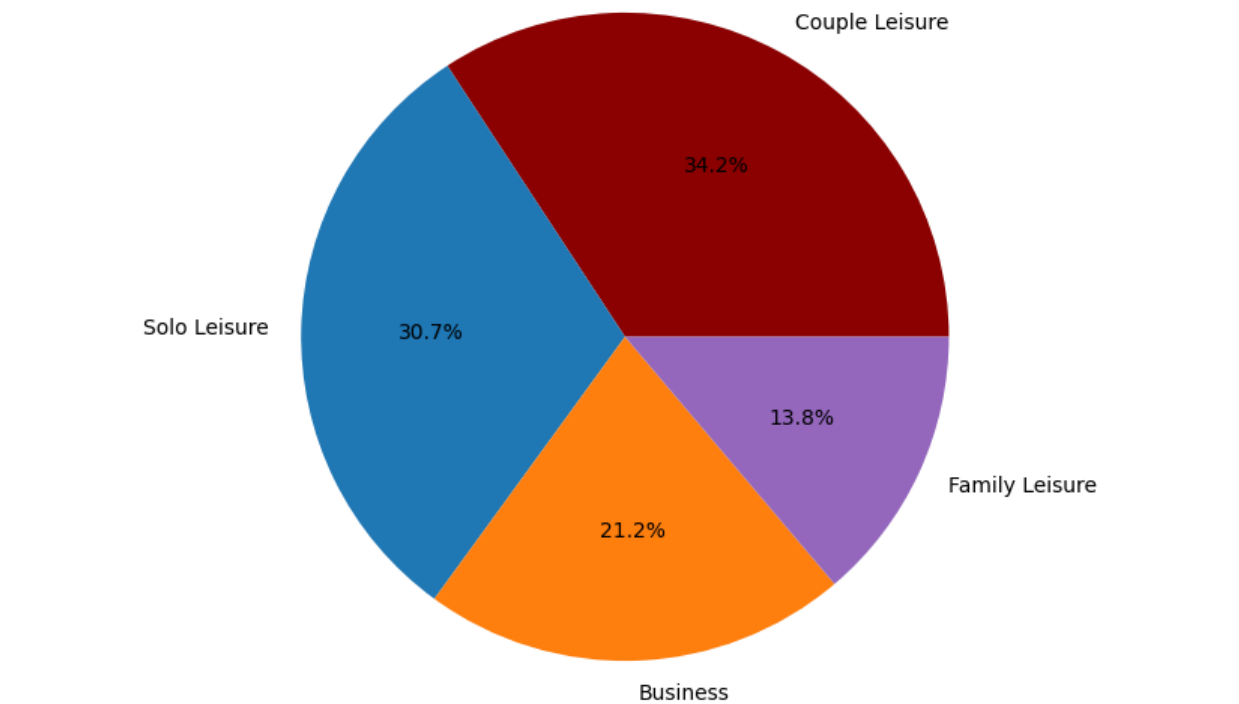


- **There is an uneven distribution in topics discussed by customers since most reviews are relevant to In-Flight services and Onboard Dining/Amenities.**
- While Onboard Dining/Amenities topic is relevant to more than one third of total feedbacks, most of them are from Economy Class segment and negative.
- Flight Operations/Punctuality and In-Flight services are the areas where almost all seat class segments express negative feedbacks.
- Upper Higher seat class segments (Business Class, First Class) gave very few feedbacks regardless of attitude in terms of Customer Service and Support as well as Onboard Dining/Amenities. This indicates the fact that they are served commensurate with the price they pay for the service. However, the area received a huge negative feedbacks from Economy Class segment, requiring room for improvements.

➔ The result indicates the fact that we have some troubles in In-Flight services as well as Flight operations/Punctuality since most negative feedbacks fall in these areas. Meanwhile, whereas the other two services did not receive overly negative reviews from the premium segment, the problem persisted with economy class passengers. **This suggests that we are not providing a good enough service to the general public as this segment led all negative reviews across all four categories.**

3.3. How Purposes of Travelling Affect the Sentiment of Customers

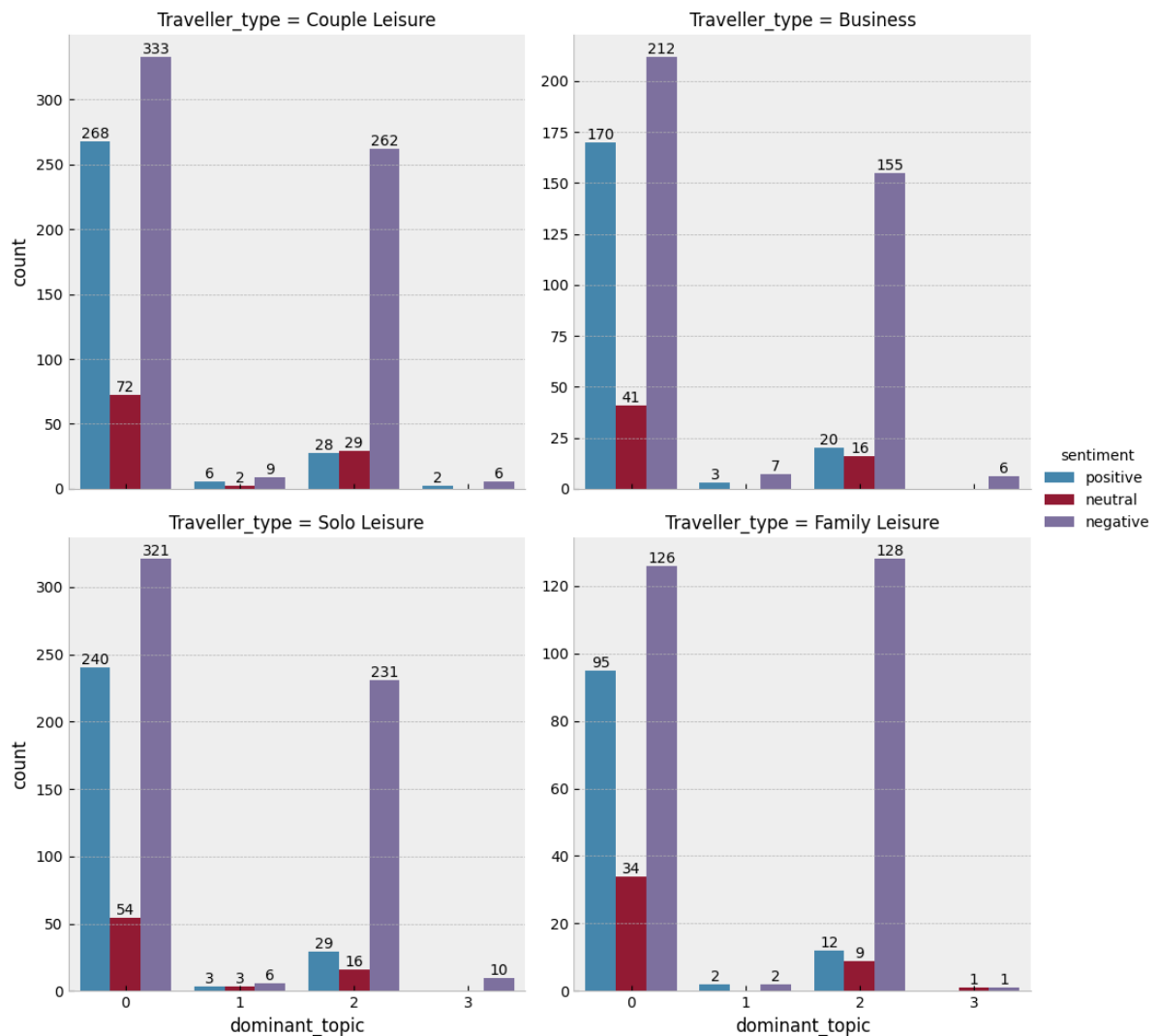
Proportion of customers giving feedbacks by Traveller Type



- **Leisure is the leading purpose our customers aim when taking British Airways flights** while only around one fifth of customers take flights for work purpose. In particular, family Leisure shows the lowest overall feedback volume, indicating either fewer family travelers or less engagement in providing feedback.
- The same trend could be seen in the distribution of attitude of reviews between four traveller types. Across all traveler types, negative sentiment dominates, indicating widespread dissatisfaction or unmet expectations among travelers.

3.4. Frequency of Topic Discussion by Traveller Type and Following Attitude

Frequency of Topic Discussion by Traveller Type and Following Attitude



- As mentioned above, onboard dining/amenities and In-flight services are the most common topics discussed by our travellers. However, while in area of onboard dining/amenities, there is not a huge gap between positive and negative reviews, in terms of in-flight services, most of the feedback is negative.

- Family Leisure travellers, while the number of whom giving feedback is the lowest compared to four groups, have the highest number of negative feedbacks (61.95%). Regarding the fact that family leisure travellers are typically families with children, they are the most sensitive customer group and need the most care. **The result suggests our services are not friendly enough to family leisure customers, especially our in-flight services.**
- In terms of service/ customer support, although the figure of reviews is considerably low, nearly 100% are negative